"On the Special Susceptibility of the Fair-haired Races of Europe for Contracting Sweating Sickness"

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ANTHROPOLOGY SOCIETY OF PARIS Meeting of March 3, 1881

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The sweating sickness claims two more victims

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Messieurs, the communication presented last Tuesday by Doctor Rochard to the Academy of Medicine about an epidemic of sweating sickness—an epidemic which has limited itself for the past few months to the small isle of Oléron along the West coast of France—affords me the opportunity of reporting a hitherto unrecognized fact to you that I point out in my Medical Geography course at the School of Anthropology.

When one closely follows the history of sweating sickness, from its sudden appearance up to the recent epidemic about which Doctor Rochard has spoken, one is struck by the fact that it always evinces a predilection for the fair-haired races of Europe.

Let me quickly recapitulate the history of sweating sickness.

I

First epidemic. – In August, 1485, while the rivalry of the Houses of Lancaster and York in England were giving rise to the War of the Roses, a new disease burst forth: it was the sweating sickness.

It broke out in the camp of Henry Tudor, who proceeded to win the battle of Bosworth Field over Richard III. Men died after sweating profusely for eight to ten hours. From the camp at Bosworth Field, the disease spread to the west and east, as far as London: it ravaged all of England, but Scotland and Ireland were spared.

Second epidemic. – Twenty-two years later, in 1507, a new epidemic, less grave than the first, arose in London itself, whose confines it did not go beyond.

Third epidemic. – In 1518, the third appearance of the same sickness occurred, this time more serious than the first: sick persons died in two to three hours. The disease carried away in many places one-third or even half the population. Scotland and Ireland were again spared; but, for the first time, the malady crossed the channel, appearing in Calais, then under the control of the British. All who were not English were exempt from its effects.

Fourth epidemic. – In 1527, a new epidemic of sweating sickness in England manifested itself: it killed its victims in five to six hours. While it again respected Ireland and Scotland, it came to Calais, where it again only struck the British; but a British ship went to Hamburg, losing several men en route. The sweating sickness broke out in Hamburg, where it killed a thousand persons in 22 hours.

From Hamburg the sweating sickness spread to the east, all along the Baltic. It invaded Lübeck, Bremen, Stettin, Danzig, Königsberg, Lithuania, part of Poland, and Livonia where, in 1530, it wiped out two-thirds of the population.

To the north it reached Denmark, Sweden, and Norway; in Copenhagen it claimed 400 victims in a single day.

Towards the southwest it attacked Westphalia, Cologne, Speyer, Nuremberg, Strasbourg, Mulhouse, and Augsburg as well, where in eight days it afflicted 1500 people, 800 of whom died.

In the south it invaded Württemberg, the Duchy of Baden, the Palatinate, Bavaria, and Vienna, which at that time was being besieged by the Turks. This was its extent and it did not strike the Turks. One saw it also in Basel, Solothurn, and Bern.

Fifth epidemic. – April 13, 1551 marked the beginning of a fifth epidemic of sweating sickness, which was even more terrible than the preceding ones. The panic-stricken populations fled to Ireland, Scotland, and France, where they knew that the sweating sickness had not previously reached; but whereas the escapees conveyed with them the contagion and died in Ireland, Scotland, and France, the Irish, Scotch, and French who accepted the fleeing newcomers did not themselves come down with the disease. Furthermore, foreigners from these same three countries who concurrently were in London also did not become affected by the malady.

A medical doctor at the time, Jean Kaye, more popularly known by the name *Caius Britannicus*, had been impressed by this special susceptibility of his compatriots for contracting sweating sickness. "This disease," he stated, "follows us, we English people, like a shadow; it attacks all who *vivendi ratione et consuetudine factum est britannicum*."

With the opinion of Jean Kaye having received little support, the

extension of the sweating sickness into Germany was enough to further discredit it. I myself do not concur with his contention that the English race is uniquely susceptible, my main reason being that there is no English race; but here is what strikes me as particularly significant: 1) in the United Kingdom sweating sickness only invaded those regions inhabited by tall, blond-haired Anglo-Saxons, whereas those areas inhabited by short, dark-haired Celts were spared; 2) whenever the sweating sickness escaped England, it extended itself precisely into the original lands of the Anglo-Saxons.

Where, in fact, did the Angles come from? Tacitus speaks of the Angles as a small people without any prospects, inhabiting the forests of northern Germany, near the Baltic. And the Saxons? Ptolemy places them between the mouth of the Elbe and the narrow arm of the sea which today we call the Schlei.

Now, it is these Angles and these tall, blond, dolichocephalic Saxons, with blue eyes, who in the fifth and sixth centuries successfully invaded what is today Great Britain, drove back the Celts and thereby confined them to the interior part of the island.

At length in the ninth, tenth, and eleventh centuries these Anglo-Saxons were joined by two fair-haired Scandinavian peoples, themselves also tall, dolichocephalic and blue-eyed: the Danes and Normans.

It is but sufficient to cast one's eyes on an ethnographic map of Europe, and compare it with a map showing the extent of the sweating sickness, in order to see that in the countries where sweating sickness has reigned a tall, blond, dolichocephalic, blue-eyed race predominates, and that the two maps virtually match each other when superimposed.

Sweating sickness, said to be *English*, is therefore in reality a disease affecting the fair-haired races of northern Europe.

II

But a new era of sweating sickness, so to speak, dawned in 1652. At Leipzig, 123 years after the last appearance of the so-called *English sweat*, an abated form of the disease manifested itself, which since then has never ceased to appear on the continent.

In 1818 the same malady established itself in Picardy, and it took the name *Picard sweat*; so, people named the attenuated disease the *Picard sweat*, just as they had named the regular disease the *English sweat*.

Little by little it descended into Normandy, France proper, and Burgundy.

One saw it at Beauvais in 1821; at Poitiers in 1845; in the northern parts of Spain and Italy in 1835 and 1849 respectively; in Holland, in 1850; at Kissinger in 1864. We are now happening to see it in the Isle of Oléron.

Just a minute ago I said that the ethnologic map of the fair-haired populations of Europe and the map of the *English sweat* are superimposable; additionally, I can say that the map of the sweating sickness in Picardy corresponds to the ethnologic map of France showing the intermixture of fair-haired elements with others.

It is in this manner that one spots it first in Picardy, then in the following departments: Pas-de-Calais, Somme, Aisne, Oise, Seine-et-Oise, Seine-Inférieure, Eure, Seine-et-Marne, Aube, Côte-d'Or, Jura, and Bas-Rhin, departments where the tall blond element dominates.

When one looks at the map that Boudin drew up denoting those areas in France containing tall individuals, which correspond to the localities of the fair-haired populations, one will see that these two maps coincide; one will see the correspondence also in the apparent anomalies. Hence, according to Boudin's map, whereas individuals of tall height are grouped in the north and northeast of France, two regions stand out as the exception: Charente-Maritime and Hérault.

Doctor Gustave Lagneau has demonstrated that this apparent anomaly will precisely bear out the accuracy of the tall height evidence. He reminds us that Charente-Maritime counts as its ancestors the tall, blond Alans, and that Hérault reckons amongst its own the Volsci, also tall and fair-haired, both Germanic peoples.

The map of the sweating sickness is in conformity with these anomalies. While the principal departments invaded by it correspond to the distribution of tall individuals and are grouped in the north and northeast, the two exceptions—Charente-Maritime and Hérault, with their tall inhabitants—have also experienced the existence of sweating sickness.

There is not then anything here which should necessarily surprise us: after all, has not Doctor Magitot demonstrated that susceptibility to tooth decay is more marked among these same blond races? Don't we know that their constitution—and I mean by this their physical make-up of liquids and solids—differs? It is easy to understand how these physiochemical differences form in the bodily interior of the fair-haired races an environment more conducive to the culture of the microbe responsible for the sweating sickness than the internal environment of the dark-haired races. Along these lines, you may recall that Darwin has shown that certain morbid predispositions vary among dark-skinned and light-skinned pigs. Without entertaining this matter any further, I must conclude, messieurs, that Europe's fair-haired races' susceptibility to sweating sickness is therefore nothing but the conformance to the laws of biology.

DISCUSSION

Monsieur HENRI MARTIN (Past President, 1878, Anthropology Society of Paris). Doctor Bordier, I must ask you why the epidemics have spared Ireland and Scotland. In these two countries, after all, the fair-haired race is extremely numerous. In Ireland one finds such people distributed throughout the entire island—many more, in fact, inhabiting the west and south than I had even believed before I visited those areas. One can pose this same question regarding Brittany.

Doctor FELIX-HENRI DE RANSE. I did not hear you cite, Doctor Bordier, in your summary of the epidemics of the sweating sickness an outbreak of the epidemic that extended itself throughout Lot-et-Garonne during the reign of Louis-Philippe. Several of my relatives—all dark-haired, brachycephalics, and of short height—were struck by the disease.

Professor JULES PARROT. Doctor Bordier, you omitted mentioning the epidemic of the sweating sickness which around 1842 exercised such great havoc upon the department of Dordogne. One of my relatives conducted an excellent study of this epidemic. It is true that this department had lately been occupied by the English for a sufficiently long time.

Doctor FELIX-HENRI DE RANSE. The epidemic which you have just talked about, Professor Parrot, is the same one that attacked Lot-et-Garonne at about the same time.

Pastor AUGUSTE ESCHENAUER. Messieurs, I was at Saint-Foy in 1842 as a 15-year-old student, and I personally remember this epidemic. Doctor Broca, founding father of our Society, took care of many of us for this illness which had claimed so many victims outside of the school where we were.

Around 1853-54, I recall that there was an epidemic of the sweating sickness in Paris.

Doctor ÉMILE MAGITOT. An epidemic of sweating sickness broke out also in 1854 in Haute-Marne and Haute-Saône. I was able to observe it firsthand by reason of a mission which I had conducted in the regions affected at that time by cholera. The epidemic, in fact, succeeded the cholera, which happened to take numerous victims, and was by itself very deadly. Doctor Bordier has, moreover, mentioned this epidemic during his presentation.

Doctor ARTHUR BORDIER. The story, Doctor de Ranse, that you related regarding short, dark-haired brachycephalic individuals being attacked by the sweating sickness does not appear to me to constitute an argument against the conclusion that I have formulated. People may be short and brachycephalic, but nonetheless belong to the fair-haired race. Likewise many persons might possess all the exterior attributes of the dark-haired race and yet have assumed from the fair-haired race a special susceptibility for contracting sweating sickness.

Keep in mind that there is not one department in France in which there are no men belonging to the fair-haired race. The research that I have presented you is based solely upon their more or less considerable proportion.

Now, if physicians would take a survey of the number of light and dark-haired individuals among their clientele that have come down with the sweating sickness, this data would be of great importance.

I must also point out that in certain departments, such as Vienne or Indre-et-Loire, there are no, as it were, periods of the year where one does not observe a small epidemic of sweating sickness in progress. It is true that what might apply to these departments' persistent sweating sickness outbreaks is the observation you made, Professor Parrot, regarding Dordogne, which was that the English had been masters of these regions for a long time.

Monsieur HENRI MARTIN. I do not believe in the so-called influence that the political supremacy of the English, in certain parts of France, might have exercised upon the population of those regions. The English, it must not be forgotten, were mainly a political authority. The armies, very small besides, that they maintained here, were principally composed of Frenchmen. It is no more accurate to believe in the presence of Spanish blood in Flanders or Franche-Comté, although Spain had for a long time been sovereign in these provinces.

The English, moreover, are only Saxons to a certain degree. Before an invasion, such as the Saxon conquest, the heads of the clan were able to slip away and disappear; but the majority of the inhabitants remained attached to the soil and became simply colonial farmers for the conquerors.

The foundation of the English nation was Celtic, and the Saxon conquest did not at all annihilate this race. Later on, the Norman invasion introduced into Great Britain a large number of French who had intermixed with Scandinavian Normans.

THE SECRETARY-GENERAL OF THE SOCIETY (Doctor PAUL TOPINARD). I second your opinion, Monsieur Martin, and would like to add this. It is not to the English that one must attribute the blond-haired people observed in Haute-Vienne, Deux-Sèvres, and Dordogne, but rather the blond Cymric element which, from the year 1600 B.C. up to the third or fourth century of our era, never stopped forming a current north of France down to San Sébastian towards Spain, just as they formed another one along the length of the Saône and Rhône towards Italy. The Vandals and Goths are the last of these people to which I have made allusion.

Doctor JACQUES BERTILLON, Sr. I might object, Doctor Bordier, to the Italian statistics, which categorize a considerable number of deaths as due to *sweating sickness*, whereas in the French statistics this cause of death category remains void quite often. However, given the information, I am certain that the Italian totals originate from the indeterminate meaning that Italian physicians have assigned to the term "sweating sickness." They include under this rubric a variety of different illnesses, which present certain secondary symptoms, common to all maladies.

Doctor CHARLES LETOURNEAU. I support your observation, Doctor Bertillon. The Italian physicians of the old school conferred on the

sudamina an importance that was totally exaggerated. With scrupulous attention they investigated its victims concerning the causative agents of their malady, and declared it an attack of sweating sickness, no matter how little detectable it was. Someone else perceived it even further in this defective way, and invented the term *latent sweating sickness*.